

REMARKS

Reconsideration and allowance of the referenced patent application are response requested.

The Examiner has issued a restriction requirement and required an election of species.

The Examiner recited eleven groups as set forth below:

Group I claim(s) drawn to compounds, compositions and methods of use wherein X is NR⁴, R⁴ is non-Het; R¹ – R³, R⁷ – R¹² do not form a Het ring.

Group II claim(s) drawn to compounds compositions and methods of use wherein X is NR⁴, R⁴ is non-Het; R³ is pyridine; R¹, R², R⁷ – R¹³ are non-Het; R⁷ – R¹² do not form a ring.

Group III, claim(s) drawn to compounds, compositions and methods of use, wherein X is NR⁴, R⁴ is pyridine, R³ is non-het, R¹, R², R⁷-R¹³ is non-het, R⁷-R¹² do not form a ring.

Group IV, claim(s) drawn to compounds, compositions and methods of use, wherein X is NR⁴, R⁴ is piperazine, R³ is non-het, R¹, R², R⁷-R¹³ is non-het, R⁷-R¹² do not form a ring.

Group V, claim(s) drawn to compounds, compositions and methods of use, wherein X is NR⁴, R⁴ is pyrrole, R³ is non-het, R¹, R², R⁷-R¹³ is non-het, R⁷-R¹² do not form a ring.

Group VI, claims(s) drawn to compounds, compositions and methods of use, wherein X is NR^4 , R^4 is thiazole, R^3 is non-het, $\text{R}^5\text{-R}^{13}$ is non-het, $\text{R}^7\text{-R}^{12}$ do not form a ring.

Group VII, claims(s) drawn to compounds, compositions and methods of use, wherein X is CR^5CR^6 , $\text{R}^1\text{-R}^3$, $\text{R}^5\text{-R}^{13}$ is non-het, $\text{R}^7\text{-R}^{12}$ do not form a ring.

Group VIII, claims(s) drawn to compounds, compositions and methods of use, wherein X is CR^5R^6 , R^3 is pyridine, $\text{R}^1\text{-R}^2$, $\text{R}^5\text{-R}^{13}$ is non-het, $\text{R}^7\text{-R}^{12}$ do not form a ring.

Group IX, claim(s) drawn to compounds, compositions and methods of use, wherein X is CR^5R^6 , R^3 is pyridine, R^1 , R^2 , $\text{R}^5\text{-R}^{13}$ is het, $\text{R}^7\text{-R}^{12}$ do not form a ring.

Group X, claim(s) drawn to compounds, compositions and methods of use, wherein X is CR^5R^6 , R^3 is pyridine, R^1 , R^2 , $\text{R}^5\text{-R}^{13}$ is het, $\text{R}^7\text{-R}^{12}$ form a ring.

Group XI, claim(s) drawn to compounds, compositions and methods of use, wherein the compounds do not fall into any of the above groups

Applicants elect to continue prosecution of group I. Claims corresponding to group I include, 1-7 (partial) and 9-15 (partial). This election is made with traverse.

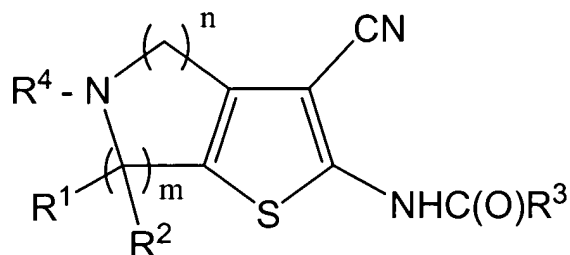
Groups I – VI have the following variables in common:

$\text{X} = \text{NR}^4$,

$\text{R}^7 - \text{R}^{13}$ are non-heterocyclic and

$\text{R}^7 - \text{R}^{12}$ do not form a ring.

These compounds show a common technical feature as follows:



There is more than sufficient structural definition for a complete search of the art by specifying in the search inquiry the 3 – cyanothiophene nucleus, the presence of the amide linked through the nitrogen at position 2 (adjacent to the S of the thiophene) and the fused nitrogen containing heterocycle, which is 5 or 6 membered, non-aromatic, and with no optional heteroatoms contained in the ring. Base upon the foregoing, the compounds of groups I – VI are not so dissimilar that they belong to different chemical classes and should not be considered different inventive concepts.

Groups VII through X similarly have a common chemical core, a 3-cyanothiophene having an amide linked through the nitrogen atom at position 2, and having a 5 or 6 membered cycloalkyl ring fused to the thiophene. In these systems X always represents a carbon atom. This creates the 5 or 6 membered cycloalkyl ring. Thus a common structural core exists between groups VII through X.

With respect to group X1, the Examiner should clarify what this is intended to cover, as it is the Applicants understanding that groups I – X are comprehensive.

With respect to all of the groups recited by the Examiner, variables R¹¹ and R¹² in claim 1 can be combined to represent a ring, not variables R⁷ – R¹². Clarification is respectfully requested.

The Examiner also required an election of species pursuant to 35 U.S.C. § 121. Applicants designate the compound of Example 1, tert – butyl 3-cyano-2-[(2-ethylbutanoyl)amino]-5,6-dihydrothieno[2,3-b]pyridine-(7H)-carboxylate.

This election is for purposes of facilitating the Examiner's search of the art, and is made with the understanding that the requirement will be withdrawn upon making a determination that an allowable generic claim exists.

Based upon the foregoing, reconsideration and allowance of the referenced patent application are respectfully requested. If the Examiner has any questions, she is requested to telephone the undersigned.

Respectfully submitted,

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